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EXAMINER
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VO, TED T

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 04/02/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/676,600

Applicant(s)

MCMILLAN ET AL.

Examiner

Ted T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/14/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the Request Continuation Examination and the amendment filed on 2/3/04. The filing for continued examination under 37 CFR 1.114 is eligible, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Claims 1-3, 5-7, 11-15, 19, 21 are amended.

Claims 1-21 are pending in the application.

### *Specification*

2. The abstract of the disclosure is objected to because it exceeds 150 words in length.  
Correction is required. See MPEP § 608.01(b).

### *Response to Arguments*

3. Applicants' arguments given in their Remarks (pages 10-15) for the amended limitations have been fully considered.

- With referring to the argument to the amended limitations recited in Claims 1 (and in the same manners of Claims 11 and 15), "**wherein first and second flowchart blocks identify first and second operational statuses of said process**": Logan III (hereafter: Logan) teaches the same: that is a decision branch that jumps to an operational status. Take the flowchart of FIG 6A, for example, the direction of "then" (identify first operational status) or "else" (identify second operational status).

- In response to the argument (re: Remarks: page 10) to the amended limitation of Claim 1 (and in the manners of Claims 11 and 15), "**a reason code module that is associated with said flowcharting module and that assigns first and second reason codes to said first and second flowchart to track occurrences of said first and second operational statuses over a predetermined time period**": The

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argument is not persuasive. Although, Logan III discloses the flowchart system for debugging, its flowchart is used for controlling a process (see its suggestion of FIG 4A). The purpose for using the flowchart is to track/control the operations of a machine (see Column 2, line 16-33). The instruction in FIG - 6A shows a tracking using the decision code of numeral reference 162. Each conditional branch of the decision block points to an operation ('a reason code') in accordance to instructions and flows given in the flowchart program. It is noted that the assigned code is up to users/debuggers; therefore, it is obvious that ***to track occurrences of said first and second operational statuses over a predetermined time period*** is up to the code assigned by user. Thus, Logan teaches the same because it associates the flowchart-based with a control machine (in addressing a prior art of FIG - 4A) for tracking an operation of a machine. The code which is assigned to the condition block (such as in FIG -6A), in the real time, would perform tracking of the operational statuses in accordance to instructions in the flowchart.

Since the arguments are not persuasive, the appropriate actions are given below.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Or,

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-9, 11-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Logan, III (US 6,243,857).

The following claims are given the broadest reasonable interpretation in light of the specification.

As per claim 1: Logan discloses,

***"A flowchart-based programming and control system, comprising:***

***a computer that includes a processor, memory, and a display;***

***a device that is connected to said computer and that is associated with a process;***

(See figure 5, blocks 142, 144, and 140)

***a flowcharting module that is executed by said computer and that generates and edits flowchart source code that includes flowchart blocks and that contains logic for operating said device to further said process*** (see figure 6A, a flowchart to be generated and edited),

***wherein first and second flowchart blocks identify first and second operational statuses of said process*** (See FIG 6A: blocks which are connected to decision block. Referring the direction of "then" for *identify first operational status*, or "else" for *identify second operational status*); ***and***

***a reason code module that is associated with said flowcharting module and that assigns first and second reason codes to said first and second flowchart blocks*** (see editing and generating means 142 figure 5, see assigned code such as the code in block 156 figure 6A) ***to track occurrences of said first and second operational statuses over a predetermined time period*** (see column 3, lines 50-57, and figure 6A, feature 156 - Logan III teaches the limitation because it associates the flowchart-based with a control machine; particularly, see addressing prior art of FIG - 4A. The code which is

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assigned in the condition block (such as in FIG -6A) in the real time would perform tracking of the operational statuses in accordance to assigned instructions in the flowchart).

As per claim 2: Logan discloses,

***The flowchart-based programming and control system of claim 1 wherein said flowcharting module compiles said flowchart source code into flowchart object code.***

See figure 5, a compiler (148) is connected to the flowchart generator.

As per claim 3: Logan discloses,

***The flowchart-based programming and control system of claim 2 further comprising: a flowchart run time engine module that is associated with said computer for executing said flowchart object code to control said process:*** See figure 5, an executive portion (144) is connected to the compiler and the engine.

As per claim 4: Logan discloses,

***The flowchart-based programming and control system of claim 3 wherein said flowchart object code generates said first reason code during execution of said first flowchart block in said flowchart object code:*** See column 3, lines 43-47, where Logan mentions that the execution of the machine is with respect to the direction of the flowchart. The first reason code is in the sense toward the direction of "then" or "else" in figure 6A.

As per claim 5: Logan discloses,

***The flowchart-based programming and control system of claim 4 wherein said flowchart object code generates said second reason code during execution of said second flowchart block in said flowchart object code:*** See column 3, lines 43-47, where Logan mentions that the execution of the machine is with respect to the direction of the flowchart.

As per claim 6: Logan discloses,

***The flowchart-based programming and control system of claim 5 further comprising: a performance analysis module that is executed by said computer and that records when said first and second reason codes occur:*** Referring to executions and debugging (started from column 7, lines 47 to column 8, lines 28).

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As per claim 7: Regarding limitation:

***The flowchart-based programming and control system of claim 6 further comprising:  
a charting module (re: Logan: FIG-6A) that is executed by said computer (the computer that executes the flowchart) and associated with said performance analysis module and that graphically represents data recorded by said performance analysis module (See column 2, lines 34-54).***

As per claim 8: Logan discloses,

***The flowchart-based programming and control system of claim 1 wherein said reason code module allows a user to assign a sub-reason code:*** Referring to flowchart elements given in the toolbars, where a user might use to design a subchart (figure 6A). Logan mentions a block has a subchart (column 8, lines 50-61).

As per claim 9: Logan discloses,

***The flowchart-based programming and control system of claim 1 wherein said first and second flowchart blocks are action blocks:*** Referring to flowchart instructions and the behavior of the machine. Logan mentions a button might be used to select active blocks (column 8, lines 50-61).

As per claim 11: Logan discloses,

***A flowchart-based programming and control system comprising:  
a computer that includes a processor, memory and a display;  
a device that communicates with said computer and that is associated with a process  
(See figure 5, blocks 142, 144, and 140);  
a flowcharting module that is executed by said computer and that generates and edits flowchart source code that includes flowchart blocks and that contains logic for operating said device to further said process (see figure 6A, a flowchart to be generated and edited),  
wherein first and second flowchart blocks identify first and second operational statuses of said process, and wherein said flowcharting module compiles said flowchart source code into flowchart object code (See FIG 6A: blocks which are connected to decision block. Referring the direction of "then" for identify first operational status, or "else" for identify second operational status);***

***a reason code module that is associated with said flowcharting module and that assigns first and second reason codes to said first and second flowchart blocks*** (see editing and generating means 142 figure 5, see assigned code such as the code in block 156 figure 6A) ***to track occurrences of said first and second operational statuses over a predetermined time period*** (see column 3, lines 50-57, and figure 6A, feature 156 - Logan III teaches the limitation because it associates the flowchart-based with a control machine; particularly, see addressing prior art of FIG - 4A. The code which is assigned in the condition block (such as in FIG-6A) in the real time would perform tracking of the operational statuses in accordance to assigned instructions in the flowchart); ***and***

***a flowchart run time engine module that is associated with said computer for executing said flowchart object code to control said process, wherein said flowchart object code generates said first reason code during execution of said first flowchart block in said flowchart object code*** (see FIG - 5, EXECUTIVE 144).

As per claim 12: Logan discloses the claim limitation of claim 12 (See figure 5, a compiler (148) is connected to the flowchart generator).

As per claim 13: Logan discloses the claim limitation of claim 13 (Referring to executions and debugging, started from column 7, lines 47 to column 8, lines 28).

As per claim 14: Logan discloses the claim limitation:

***The flowchart-based programming and control system of claim 13 further comprising: a charting module*** (re: Logan: FIG-6A) ***that is executed by said computer*** (the computer that executes the flowchart) ***and associated with said performance analysis module and that graphically represents data recorded by said performance analysis module*** (See column 2, lines 34-54).

As per claim 15: Claim 15 is a method that incorporated with the flowchart mechanism claimed by claim 1. Logan has shown the figure 6A that provides a user to use the flowchart elements to generate and to assign flowchart source code. Claim 15 has claimed functionality corresponding to the functionality of claim 1. Claim 15 is rejected in the same reason set forth in connecting to the rejection of claim 1.

As per claim 16: Claim 16 has claimed functionality corresponding to the functionality of claim 2. Claim 16 is rejected in the same reason set forth in connecting to the rejection of claim 2.



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As per claim 17: Claim 17 has claimed functionality corresponding to the functionality of claim 3. Claim 17 is rejected in the same reason set forth in connecting to the rejection of claim 3.

As per claim 18: Claim 18 has claimed functionality corresponding to the functionality of claim 4. Claim 18 is rejected in the same reason set forth in connecting to the rejection of claim 4.

As per claim 19: Claim 19 has claimed functionality corresponding to the functionality of claim 5. Claim 19 is rejected in the same reason set forth in connecting to the rejection of claim 5.

As per claim 20: Claim 20 has claimed functionality corresponding to the functionality of claim 6. Claim 20 is rejected in the same reason set forth in connecting to the rejection of claim 6.

As per claim 21: Claim 21 has claimed functionality corresponding to the functionality of claim 7. Claim 21 is rejected in the same reason set forth in connecting to the rejection of claim 7.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan, in further view of common network communications.

As per claim 10: Regarding limitation:

***"The flowchart-based programming and control system of claim 7 further comprising:  
a performance analysis server that is connected to a distributed communications system  
and that allows a remote computer to access said data":***

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Logan does not teach a connection of his flowchart mechanism to a server. However, communications system is known at the time of the disclosed reference and claimed invention. It is known that client/server has the ability of remote accessibility.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention was made to include communications for remote access, and thus to allow a computer to access data of another computer. Doing so would take advantage of all availabilities such as modem, servers, wire or wireless, provided by network communications to bring operations of two computers together, and this is used very common in communications.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (703) 308-9049. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM ET. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam, can be reached on (703) 305-4552.

The fax phone numbers:

(703) 872-9306 (for formal communication intended for entry);

(703) 746-5429 (for informal or draft communication, please label "PROPOSED" or "DRAFT").

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

*Ted T. Vo*

Patent Examiner  
Art Unit: 2122  
April 1, 2004